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NEEDS ASSESSMENT

AND TRAINING RECOMMENDATIONS

Prepared for CIRCUIT GRAPHICS LTD

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In cooperation with
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"I never speak in the work."

INTRODUCTION

This report outlines the findings of a preliminary English language and basic skills training needs analysis conducted at Circuit Graphics Ltd. in Burnaby, B.C. Methodology and recommendations for training are also detailed. The chosen deliverers of the proposed training, Delta School District, are responsible for costing estimates, and time line and scheduling concerns, to be determined in consultation with Circuit Graphics.

SITUATIONAL ANALYSIS

Circuit Graphics Ltd. is the oldest and largest supplier of Printed Circuit Boards in Western Canada. As a sub-contractor to the electronic original manufacturing market, CGL specializes in providing the highest levels of service to its clients.

The company is undertaking an up-graded system of Quality Assurance to gain access to new markets and keep up with industry demands. The system, called Statistical Process Control, involves the production staff in reporting and understanding information necessary for documenting the consistency of the PCBs they manufacture.

SPC requires good communication skills, and an understanding and use of algebra in charting the production process. A number of Circuit Graphics Ltd. employees in the production plant will be unable to fully participate in the Quality Assurance program due to inadequate English language and math skills. As a result, CGL has a critical need for skills up-grading for some workers for whom English is an additional language not the language of their everyday life.

Furthermore, the people in the company report a need for general improvements in English language communication skills, SPC aside, for easy and efficient communication in the plant.

METHODOLOGY

Informal interviews were held with 14 individuals identified by the company as potential participants in a training program, and with 9 key people in the communication network of CGL. The key people included a lead hand, supervisors and the plant manager, the SPC team, the training supervisor, and the accountant, all of whom have regular contact with second language speakers at CGL.

The interviews were between 15 and 40 minutes long, depending on the responses given. Potential participants were asked to explain their work, background and education. All interviewees talked about Circuit Graphics and who they talked to, when, and about what. Examples of problem situations were discussed.

The consultant had ample opportunity to sample the potential participants' communicative competence. All respondents were asked for suggestions about the content, approach and scheduling of the proposed training program.

Brief example responses are included in italics at several places in this assessment report.

The consultant also examined and reviewed CGL documents including:

An Introduction to Circuit Graphics Ltd., the employee orientation and company policy handbook

Travellers (the CGL routing sheet)

SPC course materials and sample charts

Memos and posted notices

Safety information

Additionally, the consultant had the opportunity to observe the production plant workers during work breaks, lunch period and shift changes. These observations supplement and confirm those made in the interviewing process.

FINDINGS

The need for an English language communication skills training program with technical CGL language and basic math skills to support Statistical Process Control was confirmed by this needs assessment. Effective communication is definitely inhibited within the company, affecting the attainment of essential goals for Circuit Graphics Ltd.

Specifically the findings were:

1. Basic English skills training is required by 7 of the workers interviewed before they will be able to effectively participate in English in their work, and benefit from further training. These basic skills include Listening, Speaking, Reading and Writing, as well as Communication Strategies.

   Many of the people in this group did not indicate if they did not understand the interview questions. They guessed, sometimes answering a question far removed from the one asked. They were difficult to understand when they speak, and report that they are not able to read a regular newspaper.

   If they are to participate in the SPC program as planned, they will need a math review and a Math Skills program. Their level of original education was, with one exception, lower than that of the people in the intermediate training group.

2. A further group at an intermediate level, up to as many as 7 plant workers need training in technical English as it relates to their work, in basic math skills and in some cases in this group, in reading. As well, these workers could benefit from knowledge of communications strategies, and from pronunciation improvement.

3. All of the ESL plant workers- and their supervisors and managers - will benefit from greater awareness and control of the socio-linguistic and intercultural factors which impact so greatly on face-to-face communications. These include:

   Control of voice tone
   Pace of delivery
   Cultural expectations and assumptions
   Non-verbal communication

Enabling functions - i.e. confirming, restating, paraphrasing and clarifying

4. Confidence-building and a process of positive reinforcement for effort will be an integral part of any effort to improve communication at CGL. The interviews revealed anxiety, fears and insecurities. The consultant was asked if "the company will get mad if I don't pass." One person indicated that English language ability had grown with feeling more at home, and more confident at work.

5. Training must include aspects of cultural understanding in order to counter misunderstandings caused by differing cultural assumptions on the part of English speaking and ESL workers within the organization. Such training would be useful to all concerned since all communication is two way.

SAMPLE QUOTES FROM THE INTERVIEWS

"I understand 50-50. . . maybe 30% understanding."

"You can only explain a technical thing one way."

"People don't and can't read the (company) newsletter."

"We understand. We can do. Sometimes we ask somebody."

"We need to improve accent. There are many people with difficult accent."

"They are scared they might lose their job."

"In my department I can read, but not in others."

"I'd like to talk better and faster. Reading is difficult."

"Cultures here tend to stick together."

RECOMMENDATIONS

The recommendations in this report build on successful Canadian models of workplace-based ESL delivery and job related Communication Effectiveness Training from British Columbia, Alberta, Manitoba and Ontario. There are three components to the recommendation - Basic Skills, Intermediate (technical language and Math) Skills, and Effective Intercultural Communication for CGL employees at all levels.

Evaluation of the recommended programs should be on-going during program delivery, both in the training room and on the shop floor. In addition, more formalized assessments should be undertaken by the instructors, confirming outcomes relative to the objectives of the training. No doubt further recommendations will be uncovered as part of the assessments made by the instructor during program planning. It should be noted that the recommended programs will not result in full English fluency and literacy for the attendees. That would require years to accomplish as compared to the "workplace" communications skills improvement recommended here.

The result of implementing these programs will be widely felt within Circuit Graphics Ltd. - greatly improved communications between participants and management, a greater appreciation by the work force of their contribution to the organization, a more receptive attitude toward planned changes, the ability of participants to understand and implement those changes and - perhaps most important to GCL - an greatly enhanced capacity for these workers to participate in further training.

The Basic Skills Program

An intensive communication skills program tailored to the needs of the 7 people identified at the Basic Level.

The skills areas in which they will achieve a competency level that will allow them to understand and participate in all of the activities of CGL, including the Quality Assurance program are:

- technical and task related vocabulary
- literacy skills as appropriate
- clear speech (pronunciation, stress and intonation)
- active listening
- control of high priority language functions such as asking for and giving information, giving examples, restating, clarifying and correcting
- facilitating face-to-face interaction i.e. interrupting politely, making a request, adding a point or leave-taking
- math skills as appropriate to provide the background knowledge for further training
- cultural understandings related to work situations
- knowledge of the company and their contribution to its success and growth

Methodology of instruction should follow the best practises of adult ESL. The instructor at CGL will function as curriculum planner, materials developer, teacher, facilitator and assessor, tailoring the program to the company's needs and the workers' abilities and evolving skills. The classroom techniques, built around the information, knowledge or skills required to function effectively include:

- goal setting
- self-monitoring
- self evaluation
- problem solving
- independent learning
- modeling and role play
- applying skills to actual company materials
- real language, with real CGL people
- "communication process control"

Outcomes to be realized - Simply stated, the attendees will be able to communicate more effectively, feel comfortable seeking clarification when they are not clear on a topic, and contribute ideas and suggestions which impact on quality and productivity.

The Intermediate Skills Program

An ESL technical communications program, tailored to the speaking, listening, reading, writing and math skills needs of those workers better able to function in English than those in the Basic Skills Program, but still not achieving effective easy communication and understanding at Circuit Graphics Ltd.

This program will no doubt cover much of the same material as the Basic Skills program, but the emphasis, depth, and focus will differ in keeping with this group's higher skill level.

The participants competency will improve in:

- technical and task related vocabulary
- literacy skills up to a Grade 12 level or higher
- clear speech (pronunciation, tone, pacing, stress and intonation patterns)
- active listening and feed-back
- control of a wide variety of language functions, including those covered in the Basic program and more
- easy face-to-face interaction
- math skills as appropriate to understand and use SPC
- cultural understandings related in interactions
- knowledge of the company and their contribution to its success and growth

The method of instruction and role of the instructor will be similar to that of the Basic Skills Program. The Intermediate students will also be taught to help their co-workers with English, and to take a leadership role in communication in their work area.

Outcomes to be realized - the participants will possess a greatly improved ability to understand and apply, plus clarify for others, the day to day information and procedures that must be communicated at Circuit Graphics Ltd. They will be able to fully take part in discussions, problem-solving sessions and in the SPC program. They should also be able to assist their less fluent co-workers and reinforce the skills and comprehension the Basic Program attendees have learned.

Course duration should be planned over a six month to one year period. If we are to expect progress in adult learners, frequency and duration of the training program over time are key factors.

A minimum of 5 hours, and an optimal 8 hours per week should be spent on this training. The program should be blocked out in manageable sessions over the year, with formative evaluation along the way.

A sample schedule: - 8 hours per week over 40 weeks (2 hours math, 6 hours English) for 320 total contact hours

Note that the Language at Work funding program allows that up to half of the training be done on the employees own time, and that interviewees expressed interest in the training, even if it were to be delivered on work share or personal time.

Intercultural Communication

In light of the multicultural work force at CGL, and because of findings in the interviews relating to misunderstandings, ethnic groupings and frayed patience, a short course on intercultural communication techniques is recommended for Circuit Graphics Ltd managers, supervisors and other staff.

The content of this course will include the impact of culture on communication, and techniques and strategies for effectively communicating across cultures. If appropriate, writing for ESL readers may also be covered.

Such a series of workshops will give CGL people the necessary skills and strategies to communicate in ways that are more accessible to employees who have English as their second or third language. The results will be improved relations and cooperation, greater employee comprehension and more consistent compliance with standards.

Final remarks

The necessary training aids, scheduling and costing of these proposed Circuit Graphics Ltd programs needs to be negotiated between the anticipated deliverer, Delta School Board, the appropriate Canada Employment Centre and Circuit Graphics Ltd.

As the consulting group on the needs assessment for Circuit Graphics Ltd, Workplace Training Systems of the Open College will maintain a continuing interest in the progress of the participants. The delivery of this reports however, completes our "delivery assistance" offer to Delta Schools and Circuit Graphics Ltd under the Language at Work program.

Normally these programs are monitored by a committee of stakeholders - funders, participants, CGL people and educators. We would welcome an opportunity to participate on the advisory committee for Circuit Graphics Ltd's ESL programs. In addition, we could take on coordination, instructor support, consulting or evaluative roles on a cost recovery basis. The Open College has several course packages - ESL, literacy and math courses with audio tapes, books and exercises - that may be appropriate for these programs.

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